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ABSTRACT

Federal support for research in vocational education dates from the Smith-Hughes Act of 1917. However, only one substantial study of vocational education research has been undertaken. In 1974, the National Academy of Sciences-National Research Council was awarded funds from the Bureau of Occupational and Adult Education for a two-year examination of federally supported vocational education research undertaken during the preceding decade. An eleven-member Committee on Vocational Education Research and Development (COVERD) was chosen to provide policy guidance for the study. The conclusions and recommendations of the COVERD study fell into two groups: assessment of the administration of the research and development program and assessment of the products of vocational education research and development. In assessing products, COVERD concluded that vocational education research has (1) added to the body of knowledge about vocational education and its students, (2) has produced new programs and classroom techniques, and (3) has developed many curriculum materials which have been purchased by large numbers of people. Recommendations resulting from the COVERD report appear to have been a catalyst for change in the vocational education research and development process. Some changes, however, clearly went too far, and several changes which COVERD recommended have not been implemented. (LRA)

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# COVERD and Legislation for "Program Improvement and Supportive Services"*

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## Introduction

Federal support for research in vocational education dates from the Smith-Hughes Act of 1917 (Public Law 64-347) which permitted the states to use federal funds to conduct studies. Within the federal office, "much attention was given to the preparation of manuals of instruction..." because there was so little instructional material available. The first such courses of study appeared in 1919 (Barlow, 1967, p. 141). Among the "research" completed were community surveys, trade analyses, standards of various kinds and evaluative criteria. But these tended to be "...a secondary part of other programs...[Research was] not their primary objective" (Barlow, 1967, p. 158).

Vocational education was assigned to the U.S. Office of Education in the mid-1930's. The predecessor of USOE, the U.S. Department of Education was assigned in 1867 the responsibility for collecting and disseminating statistics about education in the states and territories. USOE and the Department of Health, Education, and Welfare, have continued this task (U.S. Department of H.E.W., 1969), and according to Clark (1974, p. 4) this represented the only significant federal involvement in educational

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research and development prior to the 1950's. Certainly the Cooperative Research Act of 1954 (Public Law 531) represented a major expansion of federal involvement in educational research, and Clark is correct in crediting it as a major step in educational R&D. It was also a major step in vocational education R&D.

Until the mid-1950's, research in vocational education essentially did not exist as a venture which was sufficiently independent to allow accountability. Vocational education research was a priority area within the Cooperative Education Research Branch of USOE from 1956 to 1964, when the provisions of the Vocational Education Act of 1963 led to the creation of a special branch in USOE for vocational education research. The 1963 Act authorized (but appropriations never approached) 10 percent of federal vocational education funds to be used for research. One of the major accomplishments under this Act was the establishment by USOE of Research Coordinating Units through grants made to the states for research and development work and for coordination of state-level R&D in vocational education. More than 60 percent of the federal R&D funds went to universities, and many researchers from the social sciences were encouraged to do research in vocational education for the first time.

Administration of federal vocational education research funds was almost entirely within USOE until 1969. The 1968 Vocational Education Amendments (Public Law 90-576) transferred 50 percent of the vocational education research fund to the states. Within USOE, the person in charge of the remaining 50 percent has changed frequently, and the structure for administering research has changed almost as rapidly. But even more

rapid has been the change in research priorities, both within USOE and in the Research Coordinating Units (RCU's), the state agencies which now receive the majority of federal research funds for vocational education research, demonstration and curriculum development.

The most recent change in funding (for FY 1980) further reduces federal funding for "projects of national significance," and effectively earmarks a substantial portion of the remainder to the National Center for Vocational Education Research, the only federally funded survivor of a once-substantial network of national and regional vocational education research centers. Although the Secretary of H.E.W. has reversed himself and has asked that FY 1981 funds for "projects of national significance" be restored to the FY 1979 level, it would appear that USOE research in vocational education has not been receiving overwhelming support. On the other hand, state-operated R&D programs have generally been treated well.

## The COVERD Report

Only one substantial study of vocational education research has been undertaken. In 1974, the National Academy of Sciences-National Research Council (NAS-NRC) was awarded funds from the Bureau of Occupational and Adult Education, USOE, for a two-year examination of federally supported vocational education research undertaken during the preceding decade. The National Academy of Sciences was established in 1863 by Act of Congress to provide independent advice to the government on scientific matters. In 1917 its National Research Council was added, and in recent years, the NRC Assembly of Behavioral and Social Sciences has provided counsel beyond the

natural sciences and engineering, which have been the traditional areas of National Academy expertise.

The NAS-NRC prides itself on its independence, but the price of that independence is an inadequate budget which must be supplemented by project funds. As does any third-party evaluator, it must offer promise of providing useful information to the funding agency, in order to secure project funds. But in order to maintain an aura of independence and to increase its credibility in a cynical society, it must always appear to be objective and increasingly it appears to be critical of the products and programs it evaluates.

The National Academy uses three principal methods of structuring reports which will be reasonably accurate and useful but at the same time will continue their project-based funding and their credibility. The key to National Academy survival is a small cadre of continuing professional staff, augmented as needed by short-term staff who do most of the actual project work. The continuing professional staff typically selects a Committee, made up of reasonably prestigious people who have some interest or expertise in the matter being investigated. The third element in report production is a series of policy and scientific review panels which must approve the quality of the report before it can be released.

The eleven members of the Committee on Vocational Education Research and Development (COVERD) were chosen by the NAS staff to provide policy guidance for the study of the USOE vocational education research program. The study itself obviously was modeled after a then-current NAS-NRC study of the R&D program of the U.S. Department of Labor (Committee on D.O.L.

Manpower R&D, 1975), and the chairperson of the D.O.L. Study Committee also served as a member of COVERD. Other members of COVERD were social scientists, educational administrators and vocational educators. They represented labor unions, public schools, universities, state education agencies, and professional associations. They were articulate and knowledgeable, in their specialties. Those who had not specialized in vocational education soon became knowledgeable of it, and all contributed measurably to the final report. The professional staff provided by NAS was capable, and soon came to a working knowledge of vocational education. They collected data and did most of the writing. The editing and review process markedly strengthened the earlier drafts.

Both the National Academy staff and COVERD members deserve credit for their unselfish efforts. But even more credit should be given to Howard Hjelm, Glenn Boerrigter, Larry Braaten and Mary Marks, the four administrators of vocational education research in USOE. They funded the study, though they knew that it would be controversial, because they believed that it would improve the program of research. They provided all of the information they had, and they made no attempt to control the scope or direction of study.

## Contents of the COVERD Report

Because there had been little systematic study of vocational education research, it was necessary for COVERD to generate as well as to collect data. Information came from document analysis, from interviews with researchers, research administrators and persons intended to be affected by the research, from public hearings, and from commissioned papers prepared

by knowledgeable observers of the R&D scene. Incredible as it may seem, in a few cases, the only retrievable records of research projects were the project title, name of the grantee or contractor, and amount of the award. Although most final reports are available through ERIC, AIM or ARM (standard vocational education document sources), other records were not retrievable from government warehouses, and there was no record of where or how the final reports had been disseminated. The best records came from the private files of dedicated civil servants who had at one time or another been involved in vocational education research. Because of time and budget constraints COVERD did not investigate the substantial amounts of vocational education R&D funded by agencies other than USOE.

The conclusions and recommendations of COVERD fell neatly into two groups: assessment of the administration of the R&D program and assessment of the products of vocational education R&D. Assessment of the former was much easier than judgements about the latter.

Assessment of R&D Products

COVERD concluded that "vocational education R&D has added to the body of knowledge about vocational education and its students...has...produced new programs and classroom techniques for use across the nation...[and] many curriculum materials have been...purchased by large numbers of people" (COVERD, 1976, p. 41). In addition researchers had been trained and institutions for creating and disseminating knowledge had been developed. Recommendations for the content of vocational education R&D and for assessment of it in the future were quite straightforward and uninspired:

1. Study the objectives and priorities of vocational education itself.

2. Fund longitudinal studies of vocational education graduates and of comparable people who did not get vocational education.

3. Keep copies of final reports and create research syntheses.

4. Develop a systematic plan for formative and summative evaluation of a sample of R&D projects.

5. Convene an advisory panel every five years to assess vocational education and vocational education R&D and to recommend changes, as was done in 1962 and 1967 (COVERD, 1976, pp. 41-43).

Assessment of Administration of R&D

The conclusions and recommendations with regard to administration of vocational education R&D were more numerous. The key conclusions and recommendations dealt with:

1. Priorities which changed so often that cumulative effects were difficult or impossible.

2. Priorities which were based on bureaucratic or political considerations rather than on the results of previous research.

3. Distribution of funds based on geography, rather than capability of researchers.

4. Lack of coordination among research, demonstration, dissemination and curriculum development.

5. Absence of a systematic effort to assess the impact of R&D (COVERD, 1976, pp. 1, 2, 68-79).

It was these administrative impediments imposed by the legislative and executive branches of government which COVERD believed were responsible for its failure to find substantial demonstrated impact of vocational

education R&D on vocational education students. Only in curriculum development could COVERD find clear evidence of impact on students.

## Actions Taken After the COVERD Report

Even before the COVERD Report had gone through the review processes of the National Academy, congressional staff people were demanding access to its findings. The urgency was caused by congressional consideration of the Education Amendments of 1976 (Public Law 94-482). Eventually Congress was given access to the draft report before it had been approved by the National Academy.

It is impossible to judge the extent to which the COVERD draft and final report influenced Congressional actions. There are a number of parallels between the 1976 Amendments and the COVERD Report, but there are also some marked discrepancies. It seems likely that Congress accepted those parts of the COVERD Report which coincided with its previous views, and rejected those parts which were in conflict. Only in areas where no Congressional preference existed is it likely that COVERD was influential.

## Congressional Actions

COVERD recommended, and Congress acted on:

1. Evaluation of vocational education by USOE (20 USC 2312).
2. Encouragement for states to coordinate research, development, and curriculum development (20 USC 2351 and 2401).
3. Support of one or more national centers for vocational education research (20 USC 2401).
4. Coordination of USOE vocational education research (20 USC 2401 (4)).
5. In separate legislation, Congress authorized (and later funded) separate demonstration activities for Career Education.

6. Establishment of a more rational way of determining research priorities (20 USC 2401 (4)).

7. Establishment of a "Coordinating Committee or Research in Vocational Education within the Education Division of the Department of H.E.W." (20 USC 2401 (4)). This Committee has three members: the Commissioner of Education, the Director of the National Institute of Education, and the Director of the Fund for the Improvement of Post-Secondary Education (or their representatives). It is charged with developing an annual plan which (1) Sets priorities for and coordinates the use of funds for a. research in vocational education, career education and education and work, and for b. projects in research and development, exemplary and innovative programs, and curriculum development.

Congress acted on but COVERD did not recommend:

1. A requirement for contracts (no grants allowed) for research supported by State Research Coordinating Units (20 USC 2351) and for exemplary and innovative programs (20 USC 2352) and for monolingual or multilingual curriculum development. But grants can be used for projects to overcome sex bias (20 USC 2350, 2356) and for programs of national significance (20 USC 2401) and for bilingual vocational education instructional materials (20 USC 2418) and research and development (20 USC 2419).

2. A requirement that applicants for research funds "demonstrate a reasonable probability that the contract will...be used in a substantial number of classrooms or other learning situations within five years after the termination date of such contract" (20 USC 2351, 2353 and 2401).

3. COVERD recommended greater use of field-initiated proposals and use, where appropriate, of sole-source funding. But requests for proposals (RFP's) virtually are required by law to be the dominant research announcement mode.

USOE/HEW Activities

Long before the COVERD Report was completed, USOE staff began to take actions based on information being accumulated by COVERD. By the time the Report had been completed, they had implemented virtually every recommendation which could be implemented without additional funds or congressional approval. Included were:

1. Longer time periods were provided, whenever possible, between the announcement of and the closing date for receipt of applications for research funds. (But sometimes only 30 days is allowed between publication of an RFP and the final date for receipt of complete proposals.)

2. Experimentation was begun with a two-phase competition for research awards, with only the winners of the first phase being encouraged to submit full-fledged proposals.

3. Steps were taken to insure even stronger efforts to involve minorities and women in research activities.

4. The management information system on research activities was strengthened.

5. The Curriculum Center Network was funded at a (slightly) higher level.

6. Funding of Research Coordinating Units was increased, particularly in the smaller states. (Unfortunately, this was negated in a few states

by decisions to use the 20 percent set aside for "program improvement" for non-RCU activities.)

7. The two major information retrieval systems in vocational education, ERIC/CICT and AIM/ARM were brought together.

8. The National Center was assigned responsibility for analyzing and assessing research information, for transmitting it to user groups, and for assisting them to use it.

9. The Commissioner's share of research funds was no longer allocated on a formula basis, and it was no longer possible for a state department to recommend only its own proposals for funding, thus pre-empting all national research monies for that state.

10. Regional office management of R&D funds was terminated.

11. Projects aimed at translation of R&D results for consumers were being funded.

12. There was a beginning of support of research on the objectives and priorities of the vocational education program.

13. The process of impact of research in vocational education was being studied.

But USOE also acted or continued to act in ways that were not recommended by COVERD. For example:

1. COVERD recommended that the funding of Research Coordinating Units be examined closely, rather than perfunctorily, and that their past performance be evaluated. Certainly most RCU's could be improved by such an evaluation.

2. USOE failed to act effectively on a COVERD recommendation that previous poor performance of a research contractor or grantee be taken into account in the award of new contracts or grants. (USOE is not the only government agency which has this problem.)

3. No researcher, no matter how capable, has received research awards from federal funds continuously for as long as five years. Obviously, continuity of support of capable researchers leaves much to be desired. The law restricts an award to a maximum of three years, but there is nothing to prohibit a researcher receiving a renewal of support. In exceptional cases, five or six-year awards should be allowed by law.

4. The only continuity in research topics is supplied by specifications in the law, e.g., sex equity, handicapped. Other research topics fluctuate and tend to be emphasized one year and not the next. COVERD concluded that this was a major cause of inefficiency. There has been improvement, but it remains a severe problem.

Research Coordinating Unit Activity

There is a national association of Research Coordinating Unit directors which serves important coordination, education and lobbying functions. This group was, of course, very interested in COVERD activities and provided useful information to COVERD, to the Congress, and to USOE. It carefully reviewed the COVERD recommendations, and invited COVERD members and key congressional staff members to meet with them and to explain the Report and reactions to it. Perhaps more than any other agency, it was effective in transmitting the concerns of COVERD and of the Education Amendments of 1976 to the RCU's, and in developing adequate responses to these concerns.

Major effects on RCU activities appear to be the following:

1. The Congressional requirement that RCU's eliminate grants and execute only contracts has caused inordinate difficulty in many states. Bidding procedures required by state law may make it virtually mandatory that research contracts go to the lowest bidder regardless of qualifications or previous performance. In some cases even a conviction on fraud or bribery charges is not enough to disqualify a contractor. Inadequate performance on previous research activity certainly would not disqualify a low bidder in many states. Federal procurement requirements have been imposed on top of state regulations with no consideration of their compatibility, and federal procurement requirements for contracts are themselves designed for the procurement of standard commodities, rather than purchasing effective research results.

2. It is now common to have competition for research awards, with little reliance on sole-source contracts except for the extension of contracts on which performance has been good. RCU directors point out, however, that competition could and should be used in awarding grants; competition and contracts are not synonymous.

3. Priorities are determined more rationally and openly. and, once determined, are published.

4. RFP's are used more and more frequently, but small state staffs, in particular, have difficulty in preparing satisfactory RFP's.

5. Advisory committees for RCU's are now the rule, rather than the exception.

6. It is more common to plan the research process, seeking cumulative results and continuity of effort as long as worthwhile results are being achieved. With the exception of the first, these changes have been generally beneficial.

Researcher Activities

1. The principal effect of the Education Amendments of 1976 on researchers has been the need to specify in their proposals how their work will impact classrooms or other learning sites within five years. In most cases this is relatively easy to do, and it has had the beneficial effect of forcing the researcher to think seriously about dissemination activities. But in other cases, it is difficult or impossible to expect a high probability of impact within five years.

All high-risk research, by definition, has a relatively low prospect of impact, but if it combines a probability of high payoff with high risk, it may be a far more reasonable investment of research funds than is the typical low-risk, low payoff study for which it is easy to specify impact (but inconsequential impact) on classrooms. In any case, the goal should be for the research program, not each of its projects, to have impact on classrooms and other teaching-learning situations.

Where did the five-year figure come from? No one seems to know, but it seems to have no empirical base. Possibly it came from the five-year duration of the Act. The best of the recent studies of impact of technological research indicate an average of more than two decades from discovery to application, and further notes that this average has not been declining, contrary to conventional wisdom (Batelle, 1973 and IITRI, 1968). Current

research in Illinois indicates that one of the reasons for lack of research impact is high teacher turnover. In many vocational programs, especially for adults, the average teacher tenure is less than five years.

2. Another major effect on researchers has been the need to chase RFP's. This is related directly to the de-emphasis on researcher-initiated proposals and the emphasis on RFP's. Even if a researcher proposes a study which becomes an RFP, the researcher may be disqualified from bidding on the contract because of a "conflict of interest!"

It seems likely that there are more good ideas for research in the research community than are likely to emerge from sole reliance on RFP's prepared by overworked research administrators who write RFP's at home because their office duties don't allow time for this important activity. A principal reason why administrators lack time to write good RFP's is that they are forced to spend so much time on the mandated RFP competition and procurement process.

3. Lack of continuity in research as a result of chasing RFP's on varied subjects seems to be directly related to a lack of cumulative research results. It takes time to get a research project under way in an area with which the researcher has not been intimately involved. It is common for six months to be spent in understanding the previous research in the field. At about the time this is mastered, it is time to respond to a new RFP, while trying to make some substantive progress on the current project. By the time the current project is finished, it is time to study the previous research in the new area. No wonder research is not cumulative and that the impact of last year's work is not studied.

Activities of Research Users

Little concrete evidence could be found of changes in the activities of research users, but it would appear that they are:

1. More likely now, than in the past, to be asked to serve on advisory committees, respond to questionnaires, or be interviewed about their needs for research products.

2. Being asked more frequently to try out and to evaluate research products.

3. Being asked more frequently about where they secured the ideas for changes they are making.

Recommendations of COVERD Not Acted Upon

1. At least 20 percent of research, development and curriculum funds should be devoted to research, defined as a search for new knowledge.

2. A national commission should be convened each five years to recommend changes in vocational education as the Willis Commission and the Essex Commission did in 1963 and 1968, respectively.

3. Some states have still not reorganized their Research Coordinating Units to give them responsibility for both research and development.

Summary

The COVERD Report appears to have been a catalyst for change in the vocational education research and development process. In retrospect, most of these changes appear to have been desirable. Some changes, however, clearly went too far, and several changes which COVERD recommended have not been implemented. These changes appear even more desirable now than they did in 1976, and are repeated as part of the following recommendations.

Recommendations

1. Needed changes in Public Law 94-482, Education Amendments of 1976

a. Change Subpart 3, Section 131(a) and Section 133(a) to allow states to use both grants and contracts. Require State Advisory Councils to review and comment on grant and contract procedures.

b. Change Subpart 3, Section 131(b) and Section 133(b) to eliminate the requirement that each project must have a reasonable probability of use in classrooms or other learning situations within five years. Substitute a requirement:

(1). For a biennial report of the impact of the state's research, development, and curriculum development program on efficient use of public vocational education funds.

(2). That each project specify its expected impact on vocational education, the time(s) when this impact is expected to occur, the steps to be taken to increase the probability of this impact, and a suggested strategy for monitoring and assessing project impact.

c. Change Subpart 2, Section 171(a) should be changed to allow the Commissioner to use both grants and contracts. It now says "primarily for contracts and in some cases for grants." Because the National Center is funded by a grant, and because this is the largest expenditure under this section, other grants are virtually forbidden. Both grants and contracts are needed. The National Advisory Council on Vocational Education should review and comment on grant and contract procedures.

2. Needed Changes in Federal (and State) Administration of Vocational Education Research and Development

a. Allow at least half of the budget of the National Center for Vocational Education Research to be spent on projects designed or approved by the Center Staff and its Advisory Committee, with no control from Washington.

b. Reserve a substantial portion of Programs of National Significance funds (including National Center funds) for competition among proposals initiated from the field (not in response to Requests for Proposals). Federal regulations probably would require that these be awarded as grants, rather than contracts, even though there would be competition among all of the proposals submitted from the field.

c. Initiate a study to determine why higher education institutions are receiving a declining share and why private consulting firms are receiving an increasing share of research projects. Obviously, proposals from the latter must look better. Why? The conventional wisdom is that universities do better in getting grants and that profit-making groups do better on contracts. Why? How can proposals from both groups be improved? How can the match between proposals and results be improved?

d. Institute a competitive small grants program for doctoral dissertations patterned after the "New Researcher" program of the Department of Labor and the "Student Research" program of the Bureau of Education for the Handicapped.

e. At one time the Federal research program had an excellent procedure of competition among preliminary proposals, followed by full-fledged proposals from the winners of the preliminary competition.

This was dropped because federal procurement regulations permit it only for grants, not for contracts. It is still used by some state RCU's in spite of the federal regulations; and it should be used more widely. Guidelines describing successful RCU strategies for these two-phase competitions should be developed and disseminated.

f. Research needs are surveyed every year by USOE. Presumably USOE research priorities are based on these studies of needs. The identified research needs are essentially the same in each survey, but priorities change markedly from year to year. A study should be made of this anomaly. What, besides surveyed needs, affects research priorities?

g. Re-institute anonymous reviews by mail for medium and small project proposals instead of convening panels in Washington. Washington panels are so expensive and time consuming that they often can not give enough attention to each of the large numbers of proposals they review.

h. Instead of constituting virtually every research proposal review panel with a token Black and Hispanic, and half or more women, establish a pool of qualified people, with proportionate minority group representation and select panel members with needed expertise from the pool. If the trends in the present system continue, the panels will need to be doubled in size just to include pressure groups that demand representation.

i. When review panels are convened in Washington they normally work from approximately 9am to 5pm. Then they return to their hotel rooms to wait for 9am. Until recent years, they would have spent their

evenings reading research proposals, but now the proposals are locked in a vault overnight. Why? Apparently this is required by procurement regulations, allegedly to prevent collusion among panel members as to which proposals were to be recommended for funding. How this is prevented by locking up the proposals is not at all clear. Perhaps it was designed to protect the civil servant panel members from being worked overtime, but almost all out-of-town panel members agree that the result is a waste of their time.

j. Employ researchers to draft Requests for Proposals (RFP's) and allow them to bid on their own RFP's. At present, most RFP's are drafted by a small number of civil servants who do not have enough time for this activity, and the quality of RFP is affected by the time and perhaps by the small number of people involved. It is assumed that if an RFP is prepared by a researcher, this provides that person an inside track in the bidding. However, if draft RFP's were to be revised by civil servants to make sure no individual or organization is favored, and if adequate time is allowed for dissemination and response to the revised RFP, there would be no advantage to the person who drafted it. And, the quality of RFP's would certainly improve. Further improvement could be achieved by awarding two or three grants to develop an RFP for each major priority, with USOE selecting the best elements from each grantor's product.

k. Awards of contracts and grants for R&D in vocational education are normally made without consideration of past performance of the contracts or grantees. Only when there is an iron-clad case of non-performance is the contractor hampered. Review panels which recommend

action on awards are unaware of past problems (and perhaps should be unaware.) But it is undeniable that contractors who regularly have done less than satisfactory work keep on getting research contracts simply because they hire good proposal writers.

3. Needed Changes in State Level Administration of Vocational Education Research and Development

As a result of the Education Amendments of 1976, state-level administration of research, development, and curriculum development programs has been much better coordinated. In most states, these three are administered by the same person. This appears to produce considerably better results than does a coordinating committee. Still better results are achieved in the few states which place research, development, curriculum development and personnel development under the same administrator. R&D is most effective when it affects personnel development programs, but conversely, if R&D is hampered by the unavailability of specialists, the personnel development program can be modified to produce them.

4. Need to Establish a Commission to Recommend Changes in Vocational Education

COVERD recommended that each five years, a federal commission be convened to make recommendations for legislative and administrative changes in federally supported vocational education programs. The Commissions in 1963 and 1968 resulted in substantial improvements in and redirection of vocational education. It is now ten years since the Essex Commission completed its work, and another study of vocational education is clearly due. COVERD and the NIE study of vocational education are not sufficient, in the former

case, because it looked only at R&D, and in the latter case because it is conducted by a government agency whose head once announced publicly an intent to take over administration of a portion of the Bureau of Occupational and Adult Education. What is needed is a nonpartisan, nongovernmental, blue-ribbon commission which can examine all of vocational education with no pre-conceived notions. If such a commission had been established in time, it could have planned the COVERD and NIE studies. Since this was not done, the best time would be immediately on completion of the NIE study. The NIE results should be invaluable in guiding the work of the commission.

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